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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/758,779	01/16/2004	David B. Small	9968-23U1	6327

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AKIN GUMP STRAUSS HAUER & FELD L.L.P.
ONE COMMERCE SQUARE
2005 MARKET STREET, SUITE 2200
PHILADELPHIA, PA 19103

EXAMINER

HADIZONOOZ, BANAFSHEH

ART UNIT	PAPER NUMBER
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3714

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/18/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/758,779

Applicant(s)

SMALL ET AL.

Examiner

Banafsheh Hadizonooz

Art Unit

3714

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 April 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☒ Claim(s) 1-27 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

Detailed Action

In response to the amendment filed on 04/27/2006, claims 1-27 are pending in this application. Claims 18-25 have been added. This office action is made Non-Final.

Allowable Subject Matter

Claims 20,21, 23-26 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Greanias et al (US 5,007,085) in view of Inoue et al (5,831,600) and further in view of Smith III (US 5,466,158).

[Claim 1, 14]: Greanias discloses a system comprising a radio frequency scanning circuit; See Col.2:65-Col.3:7; A control circuit (e.g. Control Processor) in communication with the RF scanning circuit, and a memory in communication with the control circuit. See figure 3. The teaching of Greanias does not specifically disclose that the human finger (as per claim 1 and 14) is required. However, Inoue discloses such

feature (e.g. Stylus or human finger) in Figure 1. Also, Greanias does not expressly disclose the presence of audible output device in communication with the control circuit, or a plurality of audible files stored in the memory. However, Smith III discloses an interactive book device, which consists of a speaker which outputs the audio file retrieved from a read only memory. See Fig.3 element 44, and Figs 5 and 6. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to include the features of Inoue/Smith III into the limitations of Greanias' invention in order to design a book reading system that interacts with users through audible output as well as input selections by the user.

[Claim 2, 3,15]: Regarding claims 2 and 3, Greanias further discloses a RF scanning circuit comprising a matrix of conductive lines, wherein an RF signal is input into the specific column conductive line (e.g. through the stylus) according to a predetermined input sequence, wherein the RF signals are then received from the specific column conductive line and is outputted according to a predetermined output sequence, and wherein an oscillator generates the RF signals that is input into the specific column conductive line. See Figure 3 and Col.4, 17-38.

[Claims 4, 5]: Regarding claims 4 and 5, The RF scanning circuit of Greanias' invention further comprises an input/output switching device (e.g. wire select multiplexer) which routes the RF signal generated by the RF oscillator to each of the column conductive lines according to the predetermined sequence, and is in communication with the control circuit and the conductive lines. See Figure 3. A detailed

depiction of a multiplexer switch is also shown in Figure 4 of Inoue's invention with S1....Sn Switches.

[Claims 6-9, 17]: Regarding claims 6 and 9 Greanias further discloses a band-pass filter circuit (e.g. Frequency discriminating circuit). See Col.6, 65-68.

Regarding claim 7, the system of Greanias invention discloses the amplified and filtered coupled RF signals that are AC voltage sine wave signals. See Figure 7 (the Oscillator generates AC signals which are transferred to the Amplifier).

With respect to claims 8, and 17, Inoue teaches amplifying and filtering the coupled RF signal. See figure 4, elements 59 and 60. Inoue does not expressly teach using an AC to DC converter to transform a peak signal to DC level. However, the claimed invention includes power supply and a general purpose control circuit as described in Inoue's invention, both of which work with DC signal. Therefore the coordinate input device in Inoue reference inherently has the claimed AC to DC converter.

[Claims 10-13]: With respect to claims 10 and 11, Gearanias doesn't specifically express that the RF signal has a frequency of 100 KHz, or the amplitude of 18 VAC. However, such limitations are well known and are considered obvious design choice.

Regarding claim 12, Greanias discloses that the column and row conductive lines are separated by an insulative sheet. See Figure 2, element 52.

Regarding claim 13, Inoue discloses a controller (e.g. CPU). Inoue does not specifically disclose a microcontroller, but this is an inherent feature of a CPU controller. See Col.1, 36-40.

[Claims 16, 18-19]: Regarding claim 16, Greanias further teaches analyzing (e.g. identifying the ID code) one or more electrical characteristics of the coupled RF signal after an RF signal is input into all of the column conductive lines. See Col.6, 10-14.

Regarding claims 18 and 19 Greanias/Inoue discloses a matrix of conductive lines that are arranged horizontally with a preferred orientation, wherein the control circuit is configured to configure and analyze a single human finger presence among a plurality of possible human finger presences detected by the scanning circuit. See Figure 6, Col.7, 27-38.

Claims 22 and 27 are rejected under 35 U.S.C 103(a) as being unpatentable over Greanias et al (US 5,007,085) in view of Inoue et al (5,831,600) further in view of Smith III (US 5,466,158) and further in view of official notice.

Smith teaches an interactive book device wherein the control circuit is configured to select among the plurality of stored audible messages. See Col.347-53. However the combination of Greanias, Inoue and Smith fail to teach instructing the user to make another selection if the control circuit is unable to select the probable user selection. Nevertheless, the examiner takes official notice that it is well known in the art to include a prompt in the plurality of stored messages to instruct the user if the device is unable to process the user input. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Greanias/Inoue/Smith to include an output prompt to instruct the user to make another selection in order to allow a more effective interaction between the device and the user.

Response to Arguments

Applicant's argument filed on 4/27/06 with respect to claim rejection under 35 U.S.C 103 has been considered but are not persuasive.

Applicant argues that the Greanias reference does not disclose a human finger as an optional for of coordinate input device, and that the combination of Inoue and Greanias is unsupported. The examiner notes that the Inoue reference clearly has both stylus and human finger as a selecting or pointing mean. The Greanias invention could be modified to include human finger in order to make the use of the invention less complicated.

With respect to claims 2 and 3-12, the applicant argues that the Wire select Mux74 of Fig.6 in the Greanias reference does not switch from transition mode to detection mode. The applicant is reminded that this characteristic of the Mux74 is not discussed in any of the claims. Subsequently, both figure 2 and figure 3 in Greanias reference show that the RF signal is inputted through column conductive lines (e.g. Where the stylus is pointing), and is outputted through the row conductive lines entering the wire select Mux.

Regarding claim 10, the applicant argues that the system of Greanias' invention does not use the 100KHz signal frequency. The applicant is reminded that the frequency range over which a device works is the matter of design choice unless it is

clearly stated as to why the particular frequency is crucial for the functionality of the device.

Rgearding claims 7 and 11, the applicant may notice that any oscillator will generate AC sine waves. Since the reference includes an oscillator, the amplitude of the claimed AC signal is considered to be a design choice as discussed above.

With regard to the rejection of independent claim 14, the examiner has relied upon the combination of Greanias and Inoue in rejection of the claim.

Citation of Pertinent Prior Art

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

Lynch et al (6,668,156)

- Electronic learning device

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Banafsheh Hadizonooz whose telephone number is 571-272-1242. The examiner can normally be reached on 8:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Pezzuto can be reached on (571) 272- 6788. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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BH

4/9/2007


KATHLEEN MOSSER
PRIMARY EXAMINER